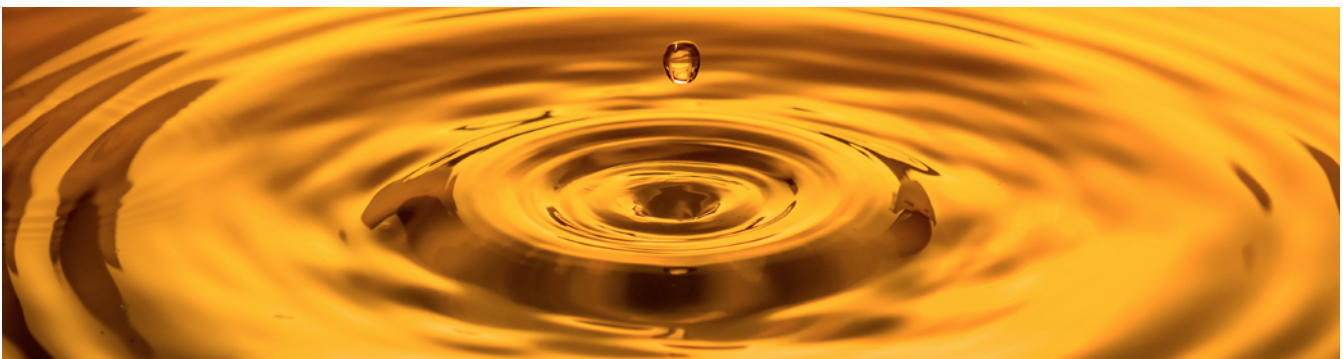


Industrial Product Catalogue

**Ready to achieve operation
excellence with tailor-made
solutions for Power Generation?**



Experts at enhancing productivity in high-pressure environments

With ever-increasing energy demand, long maintenance intervals, and extreme operating conditions, Power Generators are being pushed to the limit. At PETRONAS Industrial Solutions, we pride ourselves on helping enhance the long-term efficiency and reliability of your machinery.

With over 100 years of experience, we provide global lubricants to 128 countries, delivered with local and technical expertise. Our bespoke fluids have been developed to protect and prolong the working life of every element of your system, improving performance and powering progress.



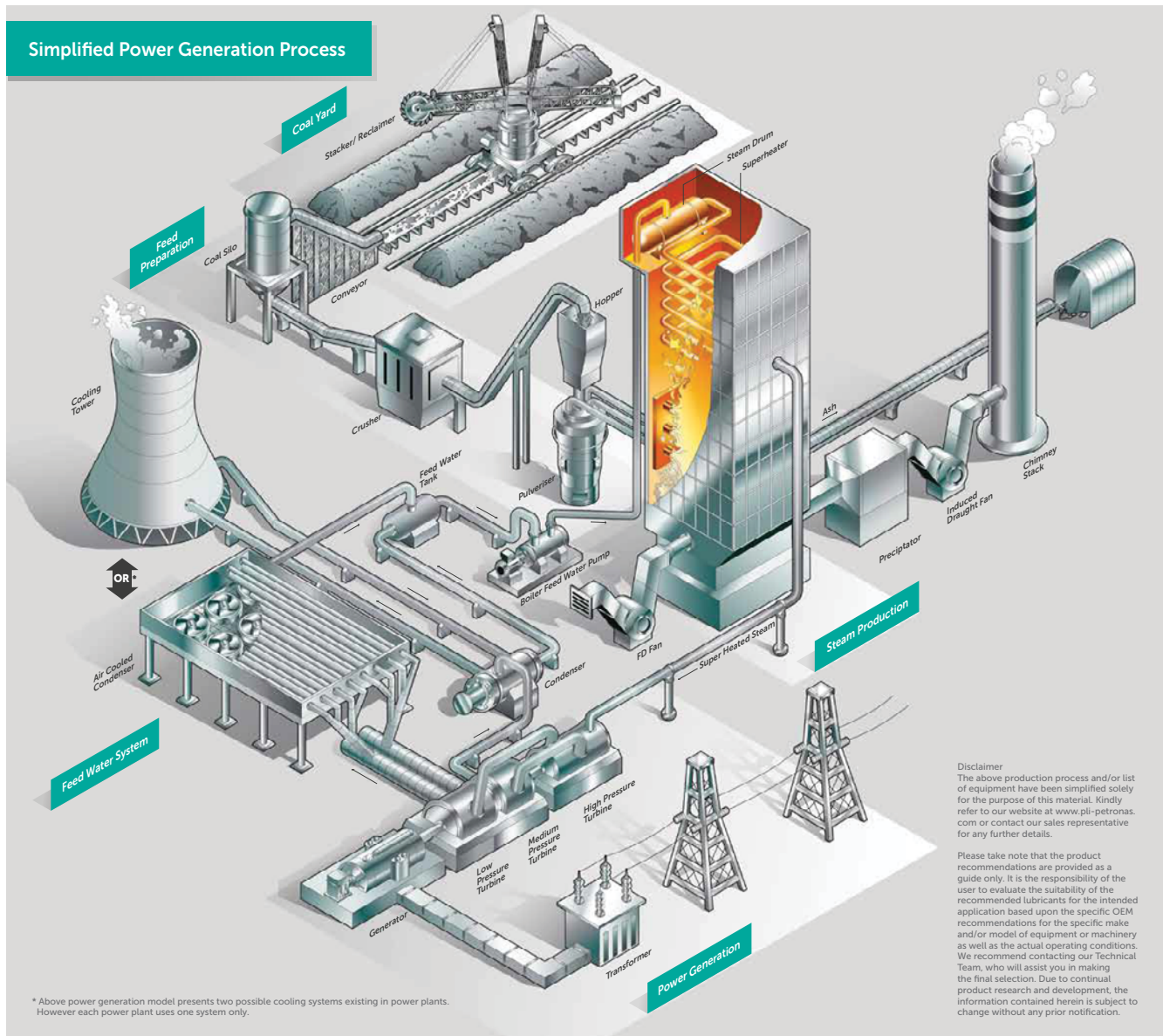
Your key to maximizing performance

With our expert knowledge and the latest advances in lubrication technologies, we have developed a comprehensive range of state-of-the-art lubricants to meet the requirements of your equipment. Contact your PETRONAS representative or visit www.pli-petronas.com to find out more.



PRIMARY PROCESS	EQUIPMENT	LUBRICATION PARTS	LUBRICANT	STANDARD	PREMIUM	SUPREME
	Dump Truck, Wheel Loaders, Front End Loaders	Cooling System	Coolant Fluid		PETRONAS Paraflu Up Ready	
		Engine	Engine Oil	PETRONAS Urania LD 7	PETRONAS Urania 5000E 15W40	
		Grease Points	Grease	PETRONAS Grease LiX MEP		
	Feeders	Bearings	Grease	PETRONAS Grease LiX EP 2/380	PETRONAS Grease LiX Syn 2/220	PETRONAS Grease LiX Syn 2/220
		Coupling (Grease)	Grease	PETRONAS Grease Li 2		
		Coupling (Oil)	Turbine Oil	PETRONAS Jenteram 32	PETRONAS Jenteram G 32, 46, 68	
		Electric Motor Bearings	Grease	PETRONAS Grease Li 2		
		Gearbox/ Reducer	Gear Oil	PETRONAS Gear MEP 68, 100, 150, 220, 320, 460, 680	PETRONAS Gear FL 150, 220, 320	PETRONAS Gear Syn PAO 150, 220, 320, 460
		Hydraulics (Stationary)	Hydraulic Fluid	PETRONAS Hydraulic 32, 46, 68	PETRONAS Hydraulic HV 22, 32, 46, 68	PETRONAS Hydraulic ESF 46
	Stacker/ Reclaimer	Cables	Grease	PETRONAS Grease LiCa GEP 2.5		
		Electric Motor Bearings	Grease	PETRONAS Grease Li 2		
		Gearbox/ Reducer	Gear Oil	PETRONAS Gear MEP 68, 100, 150, 220, 320, 460, 680	PETRONAS Gear FL 150, 220, 320	PETRONAS Gear Syn PAO 150, 220, 320, 460
		Hydraulics (Stationary)	Hydraulic Fluid	PETRONAS Hydraulic 32, 46, 68	PETRONAS Hydraulic HV 22, 32, 46, 68	PETRONAS Hydraulic ESF 46
		Slewing Ring Bearing	Grease			PETRONAS Grease LiX 2/600 SR
	Silos and Stock Piles	Electric Motor Bearings	Grease	PETRONAS Grease Li 2		
		Gear Drives	Gear Oil	PETRONAS Gear MEP 68, 100, 150, 220, 320, 460, 680	PETRONAS Gear FL 150, 220, 320	PETRONAS Gear Syn PAO 150, 220, 320, 460
		Gease Points	Grease	PETRONAS Grease Li EP 2		PETRONAS Grease LiX Syn 2/220
		Hydraulics (Stationary)	Hydraulic Fluid	PETRONAS Hydraulic 32, 46, 68	PETRONAS Hydraulic HV 22, 32, 46, 68	PETRONAS Hydraulic ESF 46

Simplified Power Generation Process



* Above power generation model presents two possible cooling systems existing in power plants. However each power plant uses one system only.

PRIMARY PROCESS	EQUIPMENT	LUBRICATION PARTS	LUBRICANT	STANDARD	PREMIUM	SUPREME
	Crusher	Bearings (Oil)	Gear Oil	PETRONAS Gear MEP 68, 100, 150, 220, 320, 460, 680	PETRONAS Gear FL 150, 220, 320	PETRONAS Gear Syn PAO 150, 220, 320, 460
		Electric Motor Bearings	Grease	PETRONAS Grease Li 2		
		Gearbox/ Reducer	Gear Oil	PETRONAS Gear MEP 68, 100, 150, 220, 320, 460, 680	PETRONAS Gear FL 150, 220, 320	PETRONAS Gear Syn PAO 150, 220, 320, 460
		Gease Points	Grease	PETRONAS Grease Li EP 2		PETRONAS Grease LiX Syn 2/220
		Hydraulics (Stationary)	Hydraulic Fluid	PETRONAS Hydraulic 32, 46, 68	PETRONAS Hydraulic HV 22, 32, 46, 68	PETRONAS Hydraulic ESF 46
		Bearings (Oil)	Gear Oil	PETRONAS Gear MEP 68, 100, 150, 220, 320, 460, 680	PETRONAS Gear FL 150, 220, 320	PETRONAS Gear Syn PAO 150, 220, 320, 460
		Conveyor Back Stop	Grease	PETRONAS Grease Li 2		
		Coupling (Grease)	Grease	PETRONAS Grease Li 2		
		Coupling (Oil)	Turbine Oil	PETRONAS Jenteram 32	PETRONAS Jenteram G 32, 46, 68	
		Electric Motor Bearings	Grease	PETRONAS Grease Li 2		
		Gearbox/ Reducer	Gear Oil	PETRONAS Gear MEP 68, 100, 150, 220, 320, 460, 680	PETRONAS Gear FL 150, 220, 320	PETRONAS Gear Syn PAO 150, 220, 320, 460
		Gease Points	Grease	PETRONAS Grease Li EP 2		PETRONAS Grease LiX Syn 2/220
		Hydraulics (Stationary)	Hydraulic Fluid	PETRONAS Hydraulic 32, 46, 68	PETRONAS Hydraulic HV 22, 32, 46, 68	PETRONAS Hydraulic ESF 46

PRIMARY PROCESS	EQUIPMENT	LUBRICATION PARTS	LUBRICANT	STANDARD	PREMIUM	SUPREME
	Pulveriser (Vertical)	Bearings (Oil)	Gear oil	PETRONAS Gear MEP 68, 100, 150, 220, 320, 460, 680	PETRONAS Gear FL 150, 220, 320	PETRONAS Gear Syn PAO 150, 220, 320, 460
		Electric Motor Bearings	Grease	PETRONAS Grease Li 2		
		Gearbox/ Reducer	Gear oil	PETRONAS Gear MEP 68, 100, 150, 220, 320, 460, 680	PETRONAS Gear FL 150, 220, 320	PETRONAS Gear Syn PAO 150, 220, 320, 460
		Grease Points	Grease	PETRONAS Grease LiX MEP		PETRONAS Grease LiCa MG XHL
		Hydraulics (Stationary)	Hydraulic Fluid	PETRONAS Hydraulic 32, 46, 68	PETRONAS Hydraulic HV 22, 32, 46, 68	PETRONAS Hydraulic ESF 46
	Ball Mill / Tube Mill	Bearings (Oil)	Circulation Oil	PETRONAS Circula 150, 220, 320		PETRONAS Circula Syn 320
		Coupling (Grease)	Grease	PETRONAS Grease Li 2		
		Electric Motor Bearings (Grease)	Grease	PETRONAS Grease Li 2		
		Electric Motor Bearings (Oil)	Circulation Oil	PETRONAS Circula 150, 220, 320		PETRONAS Circula Syn 320
		Gearbox/ Reducer	Gear oil	PETRONAS Gear MEP 68, 100, 150, 220, 320, 460, 680	PETRONAS Gear FL 150, 220, 320	PETRONAS Gear Syn PAO 150, 220, 320, 460
		Thrust Bearing	Circulation Oil	PETRONAS Circula 150, 220, 320		PETRONAS Circula Syn 320
	Pre-Heater	Electric Motor Bearings	Grease	PETRONAS Grease Li 2		
		Gearbox/ Reducer	Gear oil	PETRONAS Gear MEP 68, 100, 150, 220, 320, 460, 680	PETRONAS Gear FL 150, 220, 320	PETRONAS Gear Syn PAO 150, 220, 320, 460
	Boiler	Dampers	Grease	PETRONAS Grease Li EP 2		PETRONAS Grease LiX Syn 2/220
	Soot Blower	Grease Points	Grease		PETRONAS Grease LiX EP 2/380	PETRONAS Grease LiX Syn 2/220
	Draught Group - Fans	Coupling (Grease)	Grease	PETRONAS Grease Li 2		
		Coupling (Oil)	Turbine Oil	PETRONAS Jenteram 32	PETRONAS Jenteram G 32, 46, 68	
		Electric Motor Bearings (Grease)	Grease	PETRONAS Grease Li 2		
		Electric Motor Bearings (Oil)	Circulation Oil	PETRONAS Circula 150, 220, 320		PETRONAS Circula Syn 320
		Forced Draught Fan Bearings (Grease)	Grease	PETRONAS Grease Li EP 2	PETRONAS Grease CaSX	PETRONAS Grease LiX Syn 2/220
		Forced Draught Fan Bearings (Oil)	Circulation Oil	PETRONAS Circula 150, 220, 320		PETRONAS Circula Syn 320
		Induced Draught Fan Bearings (Grease)	Grease	PETRONAS Grease Li EP 2	PETRONAS Grease CaSX	PETRONAS Grease LiX Syn 2/220
		Induced Draught Fan Bearings (Oil)	Circulation Oil	PETRONAS Circula 150, 220, 320		PETRONAS Circula Syn 320
		Primary Air Fan Bearings	Grease		PETRONAS Grease CaSX	PETRONAS Grease LiX Syn 2/220
		Secondary Air Fan Bearings	Grease	PETRONAS Grease Li 2		
	Electrostatic Precipitators	Electric Motor Bearings (Grease)	Grease	PETRONAS Grease Li 2		
		Gearbox/ Reducer	Gear oil	PETRONAS Gear MEP 68, 100, 150, 220, 320, 460, 680	PETRONAS Gear FL 150, 220, 320	
		Grease Points	Grease	PETRONAS Grease Li EP 2	PETRONAS Grease LiX EP 2/170	PETRONAS Grease LiX Syn 2/220
		Rapper Bearings (Grease)	Grease	PETRONAS Grease Li EP 2	PETRONAS Grease LiX EP 2/170	PETRONAS Grease LiX Syn 2/220

PRIMARY PROCESS	EQUIPMENT	LUBRICATION PARTS	LUBRICANT	STANDARD	PREMIUM	SUPREME
Feed Water System	Feed Water & Condensate Pumps	Bearings (Grease)	Grease	PETRONAS Grease Li EP 2	PETRONAS Grease LiX EP 2/170	PETRONAS Grease LiX Syn 2/220
		Bearings (Oil)	Circulation Oil	PETRONAS Circula 150, 220, 320		PETRONAS Circula Syn 320
		Electric Motor Bearings	Grease	PETRONAS Grease Li 2		
		Gearbox/ Reducer (Variable Speed)	Circulation Oil	PETRONAS Circula 150, 220, 320		PETRONAS Circula Syn 320
		Grease Points	Grease	PETRONAS Grease Li EP 2	PETRONAS Grease LiX EP 2/170	PETRONAS Grease LiX Syn 2/220
		Turbine Drive	Turbine Oil	PETRONAS Jenteram 32	PETRONAS Jenteram G 32, 46, 68	
	Pumps	Bearings (Grease)	Grease	PETRONAS Grease Li EP 2	PETRONAS Grease LiX EP 2/170	PETRONAS Grease LiX Syn 2/220
		Bearings (Oil)	Circulation Oil	PETRONAS Circula 150, 220, 320		PETRONAS Circula Syn 320
		Electric Motor Bearings (Grease)	Grease	PETRONAS Grease Li 2		
		Electric Motor Bearings (Oil)	Circulation Oil	PETRONAS Circula 150, 220, 320		PETRONAS Circula Syn 320
		Gearbox/ Reducer	Circulation Oil	PETRONAS Circula 150, 220, 320		PETRONAS Circula Syn 320
		Grease Points	Grease	PETRONAS Grease Li EP 2	PETRONAS Grease LiX EP 2/170	PETRONAS Grease LiX Syn 2/220
		Hydraulics (Stationary)	Hydraulic Fluid	PETRONAS Hydraulic 32, 46, 68	PETRONAS Hydraulic HV 22, 32, 46, 68	PETRONAS Hydraulic ESF 46
	Fans	Electric Motor Bearings	Grease	PETRONAS Grease Li 2		
		Gearbox/ Reducer	Gear oil	PETRONAS Gear MEP 68, 100, 150, 220, 320, 460, 680	PETRONAS Gear FL 150, 220, 320	PETRONAS Gear Syn PAO 150, 220, 320, 460
		Grease Points	Grease	PETRONAS Grease Li EP 2		PETRONAS Grease LiX Syn 2/220
Power Generation	Turbine and Generator	Bearings (Oil)	Turbine Oil	PETRONAS Jenteram 32	PETRONAS Jenteram G 32, 46, 68	
		Gearbox/ Reducer	Turbine Oil	PETRONAS Jenteram 32	PETRONAS Jenteram G 32, 46, 68	
		Grease Points	Grease	PETRONAS Grease Li EP 2		PETRONAS Grease LiX Syn 2/220
		Turbine Control System	Turbine Oil		PETRONAS Jenteram G 32, 46, 68	
	Transformer	Reservoir (Inhibited)	Transformer	PETRONAS Elektron X		
		Reservoir (Uninhibited)	Transformer	PETRONAS Elektron		

Expert Solutions

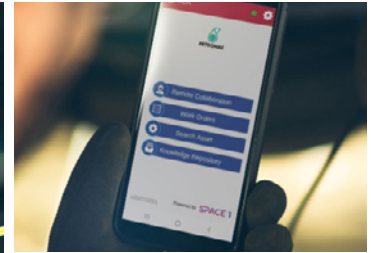
Your progress. Our priority.

By partnering with you to solve the problems you face today and tomorrow, we can help you move ahead and develop your business. Our insight-driven services help you improve reliability, reduce your operating costs and free up your potential – all because we share your goals and priorities. Expert Solutions from PETRONAS is your secret weapon in your mission to do more, use less and grow faster. It's how our passion for progress can help take you to an exciting and more sustainable future.

Equipment

Downtime is the enemy of progress. With predictive maintenance and support for your equipment and fluids, we can identify problems before they take hold – so you can plan ahead and focus on success.

- Diagnostics - Oil condition monitoring
- Fluid recommender



Operations

With so much happening in your business, it's easy to lose sight of what matters. Our Expert Solutions use tools, services and support to help you achieve greater progress more quickly – and improve efficiency while reducing operational costs.

- Fleet survey
- Fluid-i

People

With the right knowledge in your team, you can progress further, faster. That's why we work with your people to build their skills and help them work more effectively day in, day out.

- Technical training programme





Scan the QR code
for more information



www.pli-petronas.com